

Work Order ID 91266

October-05-12 9:13:13 AM

91266

Page 1

Item ID: 646.9711

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Item Name: Blade

Stop ***NS2***

Start Date: 10/05/12 Start Qty: 52.00

52

Cust Item ID:

Required Date: 10/31/12 Req'd Qty: 52.00

52

Customer:

Reference:

Approvals: Process Plan: MLS Date: 12-10-05

Tooling:

Date:

Run Start ***NR1***

QC: Date:

SPC (Y/N):

Date:

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
646.9700	N/C

100

0.00

100

BAND SAW

Bandsaw

Memo

0.00

Jcaspa Bandsaw

Cut Blank at 4.625"

DA
02 BT 12-10-10 (52)

110

0.00

110

HAAS CNC VERTICAL MACHINING #1

HAAS I

Memo

0.00

HAAS CNC vertical machine #1

1-Machine per folio FB135

DWG REV: N/C

FOLIO REV: AA

BT 12-10-13 (52)

2- deburr and break all sharp edges except otherwise noted

Work Order ID 91266

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Page 2

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	QC2- Inspect parts off machine FAI/FAIB	0.00							
120									
QC	Memo	0.00							
Quality Control									
130	QC8- Inspect parts - second check	0.00							
130									
QC	Memo	0.00							
Quality Control									
140	Outsource process - Heat Treat	0.00							
140									
Outsource1	Memo	0.00							
Outsource process - Heat Treat	HEAT TREAT AS PER DWG, SEE NOTE #3								
	ISSUE P/O: <u>18207</u>								

45 12-10-13 (52)

DAS
25
2-89 12-10-18

52

C2 12/10/22 (52)

Picklist Print

October-05-12 9:13:13 AM

Page 1

Work Order ID: 91266

Parent Item: 646.9711

Parent Item Name: Blade

Start Date: 10/05/12

Required Date: 10/31/12

Start Qty: 52.00

Required Qty: 52.00

Comments: IPP REV:A NEW ISSUE 12/09/24 JFS VERIFY BY:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

MSTEEL-A2-
B0.500X1.250

Purchased

No

100

f

42.0000

0.386

D21.128421

AISI A2 TOOL STEEL BAR, 0.500 X 1.250

Location

Loc Qty

Loc Code

MAT

42

123250

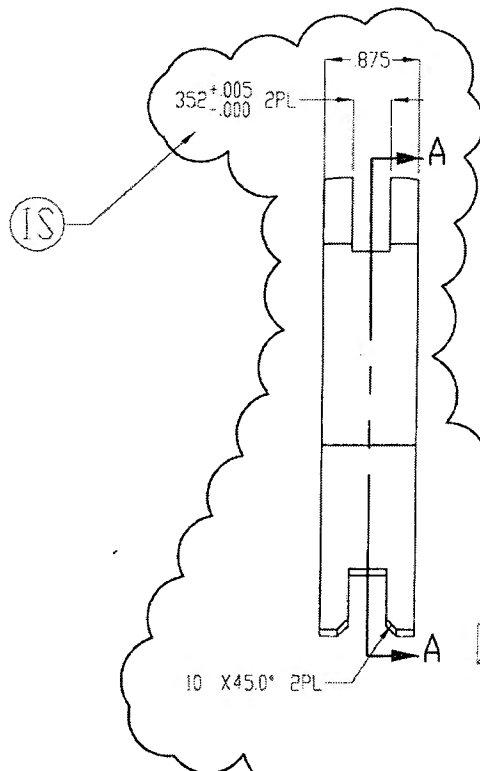
42

12-10-10

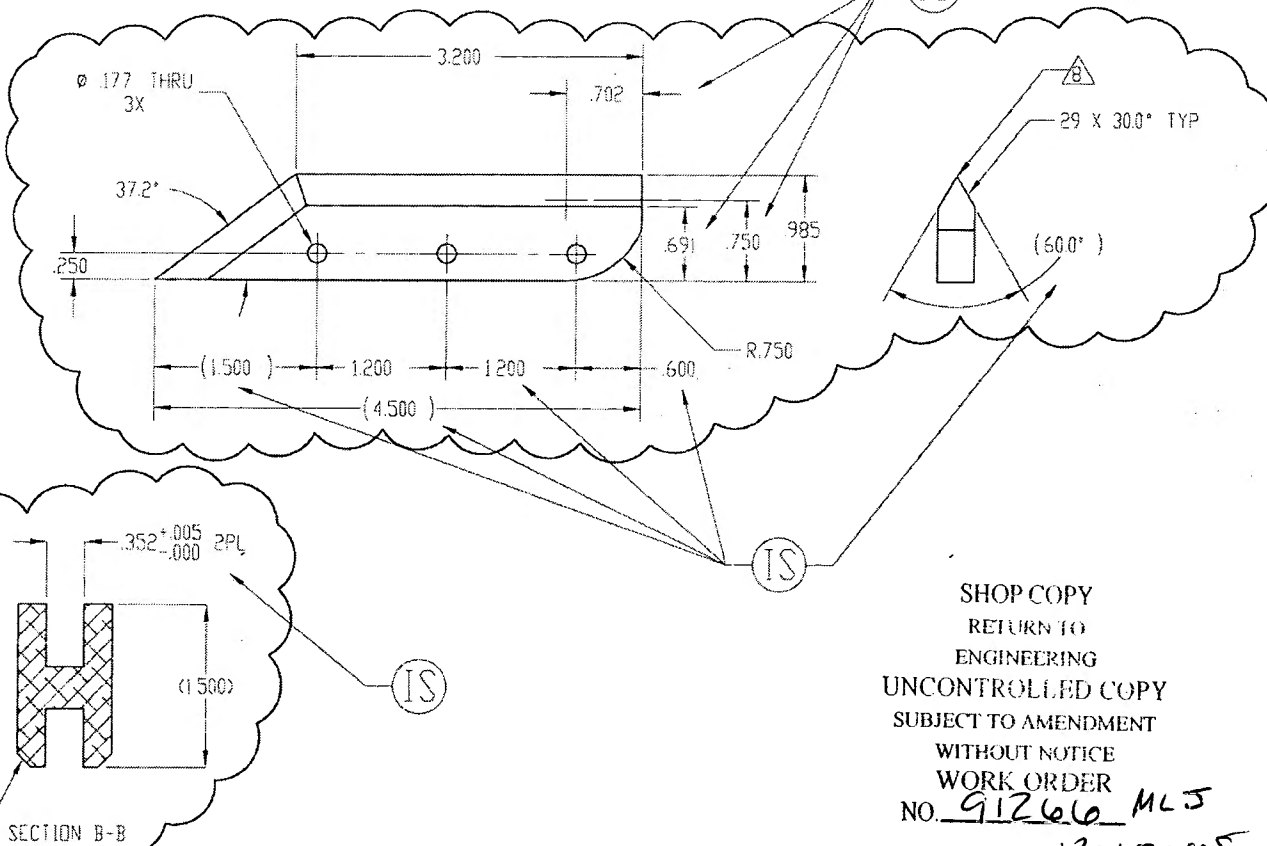
x 21.128421

APICAL INDUSTRIES, INC.	ENGINEERING CHANGE NOTICE NO. 02744		SHEET 1 OF 1	
	DWG NO. 646.9700	REV: N/C	PREPARED BY S. HUFF	DATE: 01/07/10
	EFFECT ON DWG <input type="checkbox"/> INC. <input checked="" type="checkbox"/> UNINC.			
DWG TITLE: CUTTER SUB ASSY				
APPROVED BY: ENGR <i>R. B. ...</i>	MFG <i>Daniel Jones</i>	QC <i>Wanda ...</i>	EFF: NEXT ORDER	
TRANSACTION CODES (TC): A-ADD C-CREATE R-REVISE D-DELETE	REASON: REVISED SCREW LENGTH, CHANNEL WIDTHS & DIMENSIONING SCHEME SHEET 5.			

SHEET 2, ZONE C6, IS:



SHEET 5, ZONE C2, IS:



SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 91266 MLJ
12-10-05

3	R	601.3157	12	SCREW	MS27039-0818
			.9701		
F/N	TC	PART NUMBER	QTY	DESCRIPTION	MATERIAL/SPECIFICATION
DOCUMENTS EFFECTED:				CHANGE CATEGORY	DER REVIEW REQUIRED
<input type="checkbox"/> MDL <input type="checkbox"/> INSTALL INSTRU <input checked="" type="checkbox"/> ICA <input type="checkbox"/> FMS <input checked="" type="checkbox"/> BOM				<input type="checkbox"/> MAJOR <input checked="" type="checkbox"/> MINOR	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO

BENTONITE			
Prod.	DESCRIPTION	DATE	REMARKS
	ASBESTOSITE DEPOSITED BY		(M)
100	100% BENTONITE	10/1/70	100%

① MATERIAL: ALUMINUM 7075-T651 PER AMS-QQ-A-250/12

② FINISH: HARD ANODIZE IAW MIL-A-8625 TYPE III,
CLASS 2, COLOR BLACK;
CARDINAL 4860-50 PRETREATMENT PRIMER
PRIME IAW MIL-P-23377J TYPE I CLASS N; 1-2 MIL MAX

9/266


3 MATERIAL: AISI A2 TOOL STEEL
CONDITION: ANNEALED
POST PROCESS: HEAT TREAT TO 58-62 Rc ROCKWELL HARDNESS

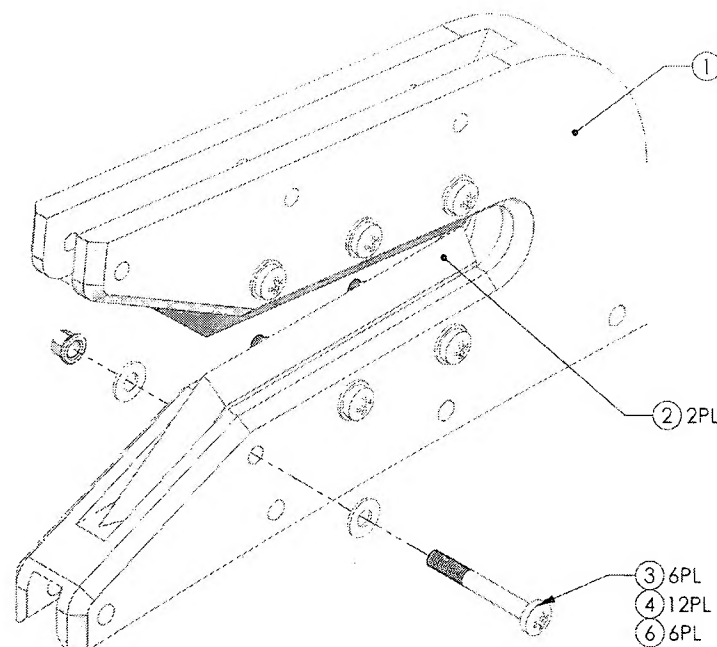
4 FINISH: PRIME IAW MIL-P-23377J TYPE I CLASS N: 1-2 MIL MAX

5. DEBURR AND BREAK ALL SHARP EDGES EXCEPT WHERE OTHERWISE NOTED

6. IDENTIFY IAW MPP-120

7 APPLY F/N 5 AS REQUIRED TO ALL FAYING SURFACES OF F/N 2 UPON ASSEMBLY

 CUTTING EDGE INTENDED TO BE SHARP, DO NOT BREAK SHARP EDGE



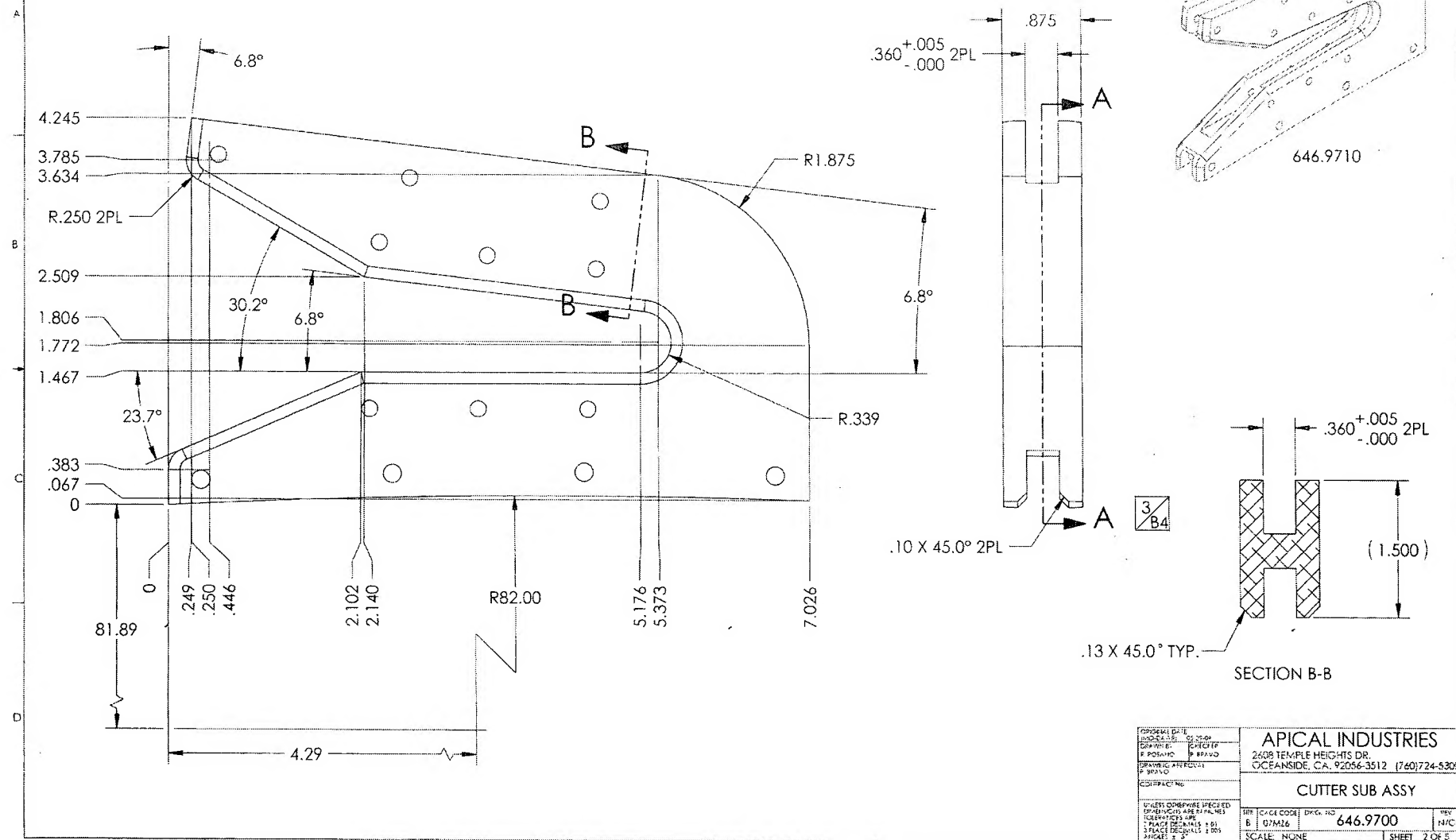
646.9701

UNINCORPORATED ECN(S)

02744

[illegible]

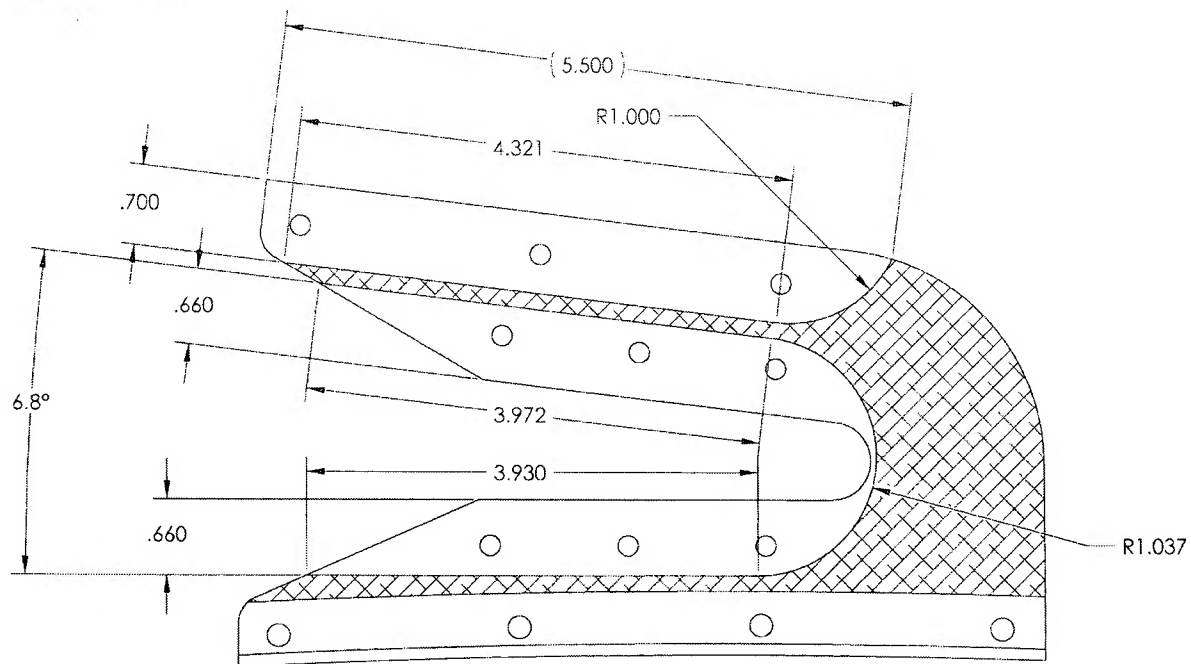
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91266

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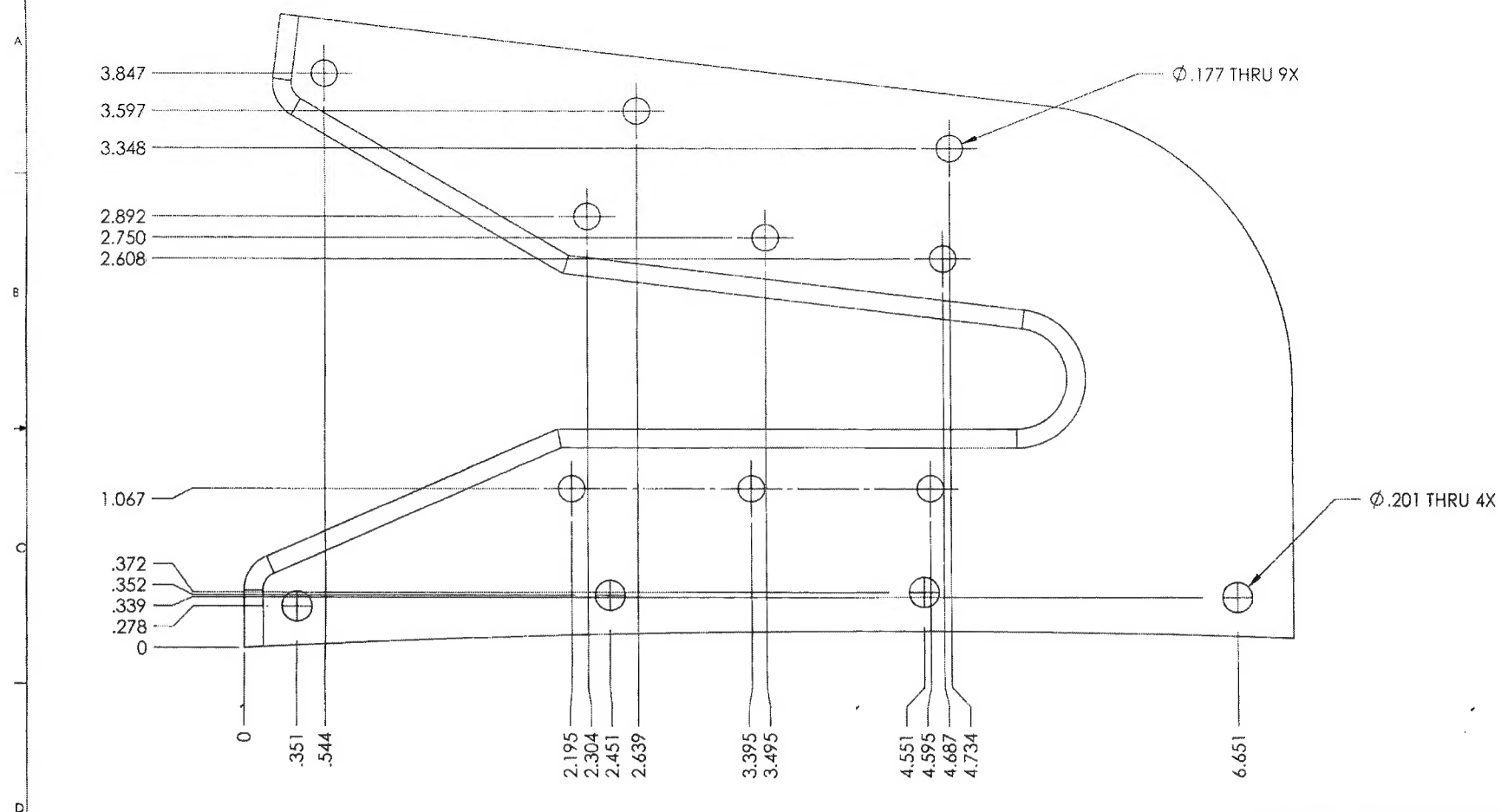
91266



SECTION A-A $\frac{2}{8}$

ORIGINAL DATE	10/20/00	APICAL INDUSTRIES
DESIGNER	W. HOLLAND	2608 TEMPLE HEIGHTS DR.
CHECKER	P. BRYAN	OCEANSIDE, CA. 92056-3512 (760)724-5300
DRAWING APPROVAL		
DATE	10/20/00	
DESCRIPTION		CUTTER SUB ASSY
UNLESS OTHERWISE SPECIFIED		
TOLERANCES ARE:		
2 PLACE DECIMALS ±.01		
3 PLACE DECIMALS ±.001		
ANGLES ± .1°		
SCALE	NONE	SHEET 3 OF 5

91266

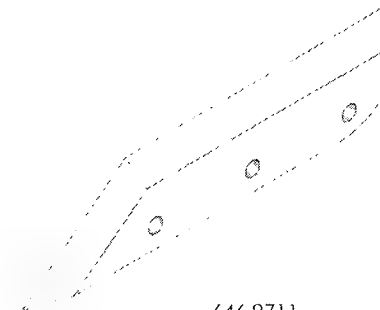
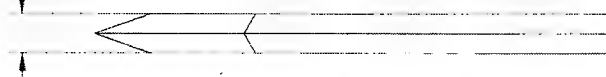


HOLE LOCATIONS +/- .002

ORIGINAL DATE MAY-04-1991 05:29:09	APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA 92056-3512 (760)724-5330			
DATE REVISIT P. REVISOR P. APPROVAL P. REVIEW P. CHECK	CUTTER SUB ASSY			
THIS DRAWING IS THE PROPERTY OF APICAL INDUSTRIES AND IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF APICAL INDUSTRIES.	SIZE SCALE B	CAGE CODE D7M2MG NONE	DWG NO 646.9700 SHEET 4 OF 5	P/N N/C

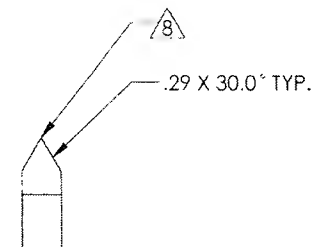
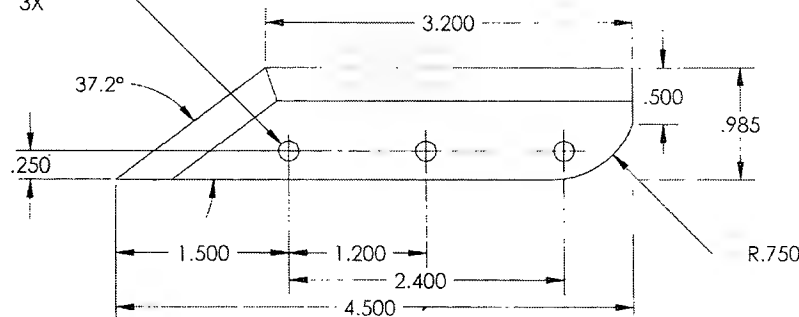
912.66

.340^{+.000}
-.005



646.9711

Ø.177 THRU
3X



8

.29 X 30.0 TYP.

PROJECT DATE DRAWN BY CHECKED BY DESIGNED BY IN CHARGE CONTRACT NO.		APICAL INDUSTRIES 2600 TEMPLE HEIGHTS DR. OCEANSIDE, CA 92056-3512 (760) 724-5300	
SHEET NO. 1 OF 3 SHEET NO. 2 OF 3 SHEET NO. 3 OF 3		CUTTER SUB ASSY 646.9700 SCALE: 1"=1"	

DART AEROSPACE LTD		Work Order: 91266
Description: 646.9700 Blade		Part Number: 646.9700
Inspection Dwg: 646.9700 Rev: N/C		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Ø.177		.177	✓		ver	25-4
3.200	+/- .005	3.200	✓			
.702	"	.702	✓			
.985	"	.985	✓			
.750	"	.750	✓			
.691	"	.692	✓			
R.750	"	.750	✓			
.600	"	.602	✓			
1.200	"	1.199	✓			
1.200	"	1.199	✓			
.250	"	.251	✓			
37.2	+/- .5°	37°				
.289						
.290	+/- .010	.289	✓			
x 30°	+/- .5°	30°	✓			
.340	+ .000 / - .005	.3365	✓			

Measured by: <i>[Signature]</i>	Audited by: <i>[Signature]</i>	Preliminary Approval:
Date: 12 10 15	Date: 12/10/15	Date:

Rev	Date	Change	Revised by	Approved
E	10.04.14	Added preliminary approval	KJ	

[Signature] 10.04.15

DART
aerospaceDart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053**PURCHASE ORDER**Purchase Order ID **PO18207**

Purchase Order Date 10/22/12

PO Print Date 10/22/12

Page Number 1 of 1

Order From :

VC-MET004

METCOR INC.
560 BOUL. ARTHUR SAUVE
SAINT-EUSTACHE, QC J7R 5A8
CA**Contact Name****Vendor Phone**

450 473 1884

Vendor Fax

450 491 5498

Vendor Account Nbr**Buyer**

Chantal Lavoie

Requisition Nbr**Tax Resale Nbr**

10127-2607

Terms

Net 30

Currency

CAD

FOB

Destination-Collect

Ship To :DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA**FAKED**
10/22/12

Line Nbr	Reference Revision ID Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	Req Qty/ Unit of Measure	Ship Method	Unit Price	Extended Price
1	91266	646.9711 BLADE	11/02/12 Yes	52.00	FedEx PI collect	\$3.8500	\$200.20

Special Inst: FINISH: HEAT TREAT TO 58-62
ROCKWELL HARDNESS**PO Total:****\$200.20**CERTIFICATE OF CONFORMITY
REQ'D UPON DELIVERY

Change Nbr: 1

Change Date: 10/22/12

No substitution or deviation without
consent.
Certificate of Conformity or Material
Certification required **YES** NO

METCOR INC.

560 BOUL. ARTHUR-SAUVÉ
ST-EUSTACHE, QC J7R 5A8
Tel: 450-473-1884 / Fax: 450-491-5498

Recu de Livraison

Order	Shipper	Shipping Seq.
180454	1	65591

Shipped Complete

Customer **215**

DART AEROSPACE
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
Ph: 613-632-5200
Fax: 613-632-1053

Shipped To:

DART AEROSPACE
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
Ph: 613-632-5200
Fax: 613-632-1053

Purchase Order Number	Customer Shipper No.	Material Type	Order Date	Carrier
PO18207		A2	2012/10/23	CLIENT

Quantity	Part No. / Part Name / Part Description	Pounds
----------	---	--------

52 646.9711 BLADE
REFERENCE 91266
BLADE
15,

CONTENANT: 1 BOÎTE DE CARTON

Container Type	# Of Containers	Container Comments
BOITE DE CARTON	1	

PACKING	
----------------	--

Quantity Shipped: 52

Pounds Shipped: 15,00

Quantity Remaining: 0

Pounds Remaining: 0,00

Quantity Shipped: 52

Pounds Shipped: 15,00

Signature:

Date:

Shipped ON: 2012/10/26

**Metcor Inc.**

560, boul. Arthur-Sauvé, St-Eustache (Québec) J7R 5A8

Tél. 450 473-1884

Télécopieur/Fax administration 450 491-5498

Télécopieur/Fax production 450 491-6454

Certificat de Conformité
Certificate of Compliance

BON DE TRAVAIL order	CHARGEMENT load
180454	1

CLIENT / customer 215

DART AEROSPACE

1270 ABERDEEN

HAWKESBURY

ON K6A 1K7

LIVRÉ À / shipped to:

DART AEROSPACE

1270 ABERDEEN

HAWKESBURY

ON K6A 1K7

1

COMMANDE DU CLIENT customer po	BON DE LIVRAISON DU CLIENT customer shipper no.	MATÉRIEL material	CODE DE TRAITEMENT mat'l heat code	NUMÉRO DE LOT lot number
PO18207		A2		

SPÉCIFICATIONS DU PROCÉDÉ
processing specifications

VAC HARDEN

HARDEN AND TEMPER

S724/20

EXIGENCE / requirement	SPÉCIFICATIONS / specified	TESTS EXÉCUTÉS / performed	RÉSULTATS DE TESTS / results
HARDNESS	58 - 82 HRC	5	58 - 81 HRC

QUANTITÉ quantity	POIDS weight	DESCRIPTION DES PIÈCES parts description
52	15	648.9711 BLADE REFERENCE 81268 BLADE CONTENANT: 1 BOÎTE DE CARTON

COMMENTAIRES / comments

CERTIFIÉ par / Certified by:



DATE: 2012-10-26

31 OCT.